AMENDMENTS TO THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claims 1-16 (canceled)

17. (NEW) A method of detecting a clog jammed in a pipe, comprising:

sensing whether a capacitance within a pipe is changed; and

outputting an alarm signal to inform the location of the clog in the pipe when the capacitance has changed.

18. (NEW) The method as claimed in claim 17, further comprising a step of outputting an enable signal to enable an alarm device to output the alarm signal.

19. (NEW) The method as claimed in claim 17, wherein the alarm signal is output to turn on a light emission diode or a buzzer to inform the location of the clog in the pipe.

20. (NEW) The method as claimed in claim 17, wherein the step of sensing whether a capacitance within a pipe is changed comprises:

moving a capacitive proximity switch into proximity of the pipe with the clog; and

moving the capacitive proximity switch upward and downward relative to the pipe until a difference in capacitance is detected.

21. (NEW) The method as claimed in claim 20 wherein the pipe is

nonmetallic, and the step of moving the capacitive proximity switch into proximity of the pipe brings the capacitive proximity switch into contact with the pipe.

22. (NEW) The method as claimed in claim 20 wherein the pipe is nonmetallic, and the step of moving the capacitive proximity switch into proximity of the pipe brings the capacitive proximity switch close to but not in contact with the pipe.

23. (NEW) A portable pipe clog detector, comprising:

a portable casing;

a power supply unit disposed in the casing;

a capacitive proximity switch coupled to the power supply unit to sense whether a capacitance within a pipe is changed and to output a enable signal when the capacitance has changed; and

an alarm device coupled to the capacitive proximity switch to output an alarm signal after receiving the enable signal, wherein the location of a clog in the pipe is identified by the alarm signal.

24. (NEW) The portable pipe clog detector as claimed in claim 23, wherein the alarm signal device is a buzzer.

25. (NEW) The portable pipe clog detector as claimed in claim 23, wherein the alarm signal device is a light emission device.

26. (NEW) The portable pipe clog detector as claimed in claim 25, further comprising a resistor coupled to the light emission device to limit a current flowing through the light emission device.

27. (NEW) The portable pipe clog detector as claimed in claim 26, wherein the light emission device is a light emission diode.

28. (NEW) The portable pipe clog detector as claimed in claim 23, wherein the power supply unit is a battery set.

29. (NEW) A portable pipe clog detector, comprising:

a portable casing;

a battery set deposed in the portable casing;

a capacitive proximity switch coupled to the battery set to sense whether a capacitance within a pipe is changed and to output an enable signal when the capacitance has changed;

a light emission diode coupled to the capacitive proximity switch to illuminate after receiving the enable signal;

a buzzer coupled to the capacitive proximity switch to sound after receiving the enable signal, wherein the location of a clog in the pipe is identified by illumination of the light emission diode and sound of the buzzer;

a resistor coupled to the light emission diode to limit a current flowing through the light emission diode; and

a switch coupled to the battery set to control a electrical conduction between the battery set and the capacitive proximity switch.